# TEMPORARY - RELOCATABLE CLASSROOM EDUCATIONAL OCCUPANCY PLAN CORRECTION LIST

Plans have been reviewed for compliance with the 1999 <u>Standard Building Code</u>, 1997 <u>Standard Mechanical Code</u>, 2003 <u>National Fire Codes</u>, and the 1974 State Public Building Accessibility Act (2002 North Carolina Accessibility Code with the 2004 Amendments). The following list does not necessarily include all deficiencies. See additional items on the cover sheet.

PLEASE NOTE: Circled items require correction by revised plans, addenda, field orders, or change orders before plans can be approved for construction. Answers in letterform <u>are not</u> acceptable. Starting construction before plans approval may be considered as just cause, by the State, to issue a <u>stop work order</u>. (Rule 0780-2-3-.02)

#### I. PROCEDURES

- \*1. Provide two copies of plans and one copy of specifications sealed (with signature and date) by a registrant in accordance with the Architects and Engineers Licensing Law Rules. [Rule 0780-2-3-.03 and A&E Rule 0120-2-.08(3)]
- \*2. Provide a second set of final plans and revisions for the job site set. [Rule 0780]
- 3. Provide on cover sheet of the plans for new and existing buildings: construction type, (un) protected, (un) sprinklered, occupancy type per NFPA 101, occupant load of spaces, number of stories and height of building, area of building per SBC Table 500 (new and existing). Show area increase calculations per SBC 503.3. Include code references with edition dates.

*4.	Complete the plans review submittal form and remit the required fee. [Rule 0780]	
5.	The fee has been calculated incorrectly. Balance due is We are refunding (The refund process takes approximately 6 to 8 weeks.)	re
6.	Information on the plans review submittal form is incorrect as follows:	
7.	The codes referenced on your plans are not those adopted by the State of Tennessee Please check your plans and specifications for compliance with State adopted codes.	e.
8.	Code deficiencies cited in the inspection report (dated/requested must be addressed.	d)
9.	Complete sprinkler shop drawings and calculations must be submitted for review an approval prior to installation. They must be signed by a responsible managin employee, and submitted by a registered fire protection sprinkler contractor. [Rule 0780]	ng

10. All piping from the "point of service" including underground used for sprinkler or standpipe system must be installed by a registered sprinkler contractor. [Rule 0780-2-7-. 08]

2-7-.09] Shop drawing information is generally a stipulation on the plans approval.

\*11. Prior to any approval being granted, items with an asterisk (\*) must be resolved.

Provide sprinkler design intent information.

- 12. If this is structurally identical to a model previously approved under the same codes, provide documentation (i.e., project name, TFM number, approval letter, etc.). We will then require two stamped sets of plans and a completed plans review submittal form (item 3 above); however, no review fee will be required. [Rule 0780-2-3-.03(7)] 13. If this unit is constructed as a Tennessee labeled modular building unit, the manufacturer must be licensed by the Codes Enforcement Section as required by TCAA Section 68-126-305(a) (3) Rule 0780-2-13-.03. 14. One or more of the following forms are enclosed: a. Plans Review Submittal Form b. Handicapped Correction List c. Hood and Duct Design Intent d. Sprinkler Design Intent e. Other \_\_\_\_\_ 15. NOTE: In order to expedite processing of this project please refer to "TFM NUMBER" on the transmittal letter when submitting any correspondence, plans, specifications, etc. II. **GENERAL** \*1. Identify use of rooms and spaces. \*2. Provide design live load values on plans for wind, roof, floor, stairs, guard and hand railings, seismic per SBC 1607.1.2, etc. [SBC Chapter 16] 3. Provide door and door hardware schedule. 4. Provide glazing schedule. Specify size and type of glazing. 5. Provide interior finish schedule. 6. Provide a complete legend for \_\_\_\_\_ 7. Provide legend for all rated wall enclosures to identify specific ratings and their limits (i.e., smoke partitions or barriers, 30 minute, one, two, and four-hour ratings). 8. Provide and identify sections and details: 9. Provide plans of equipment layout: 10. Provide two copies of structural shop drawings for pre-manufactured buildings to include manufacturer's name and model number or other designation. This is needed for
- manufacturer's name and model number or other designation. This is needed for SBCCI pre-compliance verification. Otherwise, send two copies of structural drawings, stamped by a structural engineer registered by the State of Tennessee. Show seismic information per SBC 1607.1.2.
- Provide manufacturer's cutsheets for the following: \_\_\_\_\_\_.

- 12. Specify <u>test number</u>, hourly rating, and <u>detail</u> on plans of firestop systems tested by a nationally recognized testing laboratory for each metallic and nonmetallic electrical, plumbing, HVAC piping and ductwork or conduit through fire resistive assemblies (e.g., <u>U L Fire Resistance Directory</u>, Section XHEZ, <u>Factory Mutual</u>, etc.) or as acceptable to SBC 705.4.1 and NFPA 101 8.3.5.
- 13. Provide a reflected ceiling plan showing lights, diffusers, sprinkler head, smoke detector, etc.

#### III. SITE

- \*1. Show location and footprint of all existing structures, property lines, grade elevations, water mains and other utilities, hydrants, fire department access, and all ingress/egress to public way.
- 2. Tennessee labeled modular building units, and temporary units should be fifty feet minimum from the main building and 50 feet minimum from one another. (If spaced closer than above recommendations, show compliance with SBC Table 500 and Table 600.) See **ELECTRICAL** items numbered 5 and 6 for additional fire alarm requirements.
- 3. Provide exterior handicapped ramp detail to meet maximum 1 in 12 or 8.33% slope. [NCHC 4.1 & CABO/ANSI 4.8.2]
- A fire department access road shall be provided so as to extend to within 50 feet of a single exterior door providing access to the interior of the building. [2003 NFPA 1 18.2.2.2]

# IV. CONSTRUCTION

- 1. Foundations must comply with SBC 1604.7, SBC 1804, and SBC 2303.2 or unit must be anchored according to manufacturer's set-up instructions with an engineer approved stabilizing system. <a href="PROVIDE COPY OF MANUFACTURER'S SET-UP">PROVIDE COPY OF MANUFACTURER'S SET-UP INSTRUCTIONS</a>.
- 2. Ventilation of foundation must comply with SBC 1804.6.3.1.
- 3. Glazing in one hour rated walls must be wired glass or other tested glazing material, in steel frames, no larger than 1296 square inches with no dimension greater than 54 inches. [SBC 704.2.1.5 and NFPA 80 Chapter 13]
- 4. Skylights or glazing at an angle less than 15 degrees with the <u>vertical</u> must be glazed in compliance with SBC 2405.3.1, 2407 and 2604.
- 5. Glazing in non-rated doors, sliding doors, storm doors, within 24 inches of doors, 18 inches above finished floor, and exceeding 9 square feet within 36 inches of walking surface must be safety glazed, tempered, and pass the test requirements of CPSC 16 CFR, part 1201 and comply with ANSI Z97.1. [SBC 2405.1 and .2]
- 6. Glazing in rated doors must be wired glass or other tested glazing material, and must be limited in size according to door rating. [SBC 705.1.3.6]

- 7. Specify that rated doors must have rated frames, hardware, closers and other rated accessories. [NFPA 80 1-4 Definition of "Fire Door", NFPA 80 1.6, 2.3.1, 2.4.3, 2.4.7 and SBC 705.1.3]
- 8. Specify that closers and positive latching are provided on rated doors. [SBC 705.1.3 and NFPA 80 2.4.1 and NFPA 101 7.1]
- 9. Rooms 50 square feet or greater used for storage, and any size janitor closet, must be one hour enclosed with a 3/4 hour door assembly or protected by an automatic sprinkler system and smoke tight partitions and solid doors with self closers. [NFPA 101 14.3.2.1(1) (2) (3) (4) and 8.7.1.2]
- 10. Boiler and furnace rooms must be enclosed in one-hour construction. [SBC 704.1.3.3.1 and NFPA 101 8.4.1]
- 11. Provide attic ventilation complying with SBC 2309.7. (1:250 for flat roofs and 1:150 for gable and hip roofs.)
- 12. For unsprinklered, unprotected construction, floors located immediately above usable space in basements must have a fire resistant rating of not less than one hour. [SBC Table 600 Note O]

#### V. MEANS OF EGRESS

- \*\*1. The floor on both sides of a doorway must have the same elevation. [NFPA 101 7.2.1.3.1 and SBC 1012.1.3]
- \*\*2. Handicapped ramp must be 1:12 maximum slope, 48 inches wide, and terminating at a 60 inch by 60 inch platform with at least 18 inches beyond the strike jamb on the pull side of the door. [NCHC 3.3(a, b, and c and 4.1(b).
- 3. New Handrails shall be installed to provide a clearance of not less than 2 ¼ inches between the handrail and the wall to which it is fastened. [2003 NFPA 101 7.2.2.4.4.5]
- \*\*4. Handrails and guardrails must be in accordance with NFPA 101 7.2.2.4, 7.1.8, SBC 1007.5, 1015, and NCHC 4.4.
- \*\*5. Stair landings must be 48 inches maximum in depth per SBC 1007.4.2.
- \*\*6. Stair treads must be minimum 11 inches and risers must be maximum 7 inches but not less than 4 inches (without square nosing) and must be designed in accordance with NFPA 101 7.2.2.2.1, NCHC 4.4., and SBC 1007.3.1.
- \*\*7. Door swing may not reduce landing to less than one-half its required width. [NFPA 101 7.2.1.4.4 and SBC 1012.1.5]
- 8. Each leaf of each door in the means of egress must provide 32 inches clear opening and 12 inches minimum clear on the strike side of the doors, but in no case must any single door exceed 48 inches. [NCHC 4.3.2, NFPA 101 7.2.1.2.4 and SBC 1012.1.1]
- 9. Required exit path cannot be obstructed. [NFPA 101 7.1.10 and SBC 1017]
- 10. Doors serving 50 people must swing with the direction of exit travel. [SBC 1012.1.2 and NFPA 101 7.2.1.4.2]

- 11. Number of exits must comply with NFPA 101 7.4.1 and SBC 1004.2.1.
- 12. Double asterisk (\*\*) items may be addressed by owner if not in contract.
- 13. Every assembly area shall have the occupant load posted in a conspicuous place near the main exit of the room. [SBC 403.1.2.2 and NFPA 101 12.7.8.3]

## VI. <u>INTERIOR</u>

- 1. Flamespread rating of interior finish must be Class A or B Steinter Tunnel Test. [NFPA 101 14.3.3] See NFPA 101 Chapter 10.2 and SBC 803.2 for classification definitions.
- 2. Carpet in corridors must withstand 0.22 watts/cm² Radiant Panel Test (Class II). [SBC 803.8.2]
- 3. Carpet on walls and ceilings must be Class A. [SBC 803.5]
- 4. Folding partitions must comply with interior finish requirements. [SBC 803.1.2]

#### VII. MECHANICAL

- 1. Fire dampers are required where ductwork penetrates a one or more hour wall except in one hour walls where duct penetrating wall is not greater than 100 square inches, there is no duct opening for five feet each side of wall, duct is minimum **26 gauge steel**, and above ceiling. [SMC 610.1 and SBC 705.1.2.2] Show specific location per SMC 610.6.
- 2. Fire dampers are required where ductwork penetrates a rated floor unless it is enclosed in a rated shaft. [SBC 705.2.1.4.1 and NFPA 90A 5.3.2] Show specific location per SMC 610.6. Provide details for situations with and/or without fire dampers.
- 3. Diffusers in rated ceilings must have heat shields in accordance with tested assembly design. [NFPA 90A 5.3.3]
- 4. Show how combustion air and ventilation are provided for the room containing fuel fired equipment and show size and location of vents. [SMC 704 and NFPA 54.8.3]
- 5. Gas piping is not permitted to be installed in concealed spaces unless 1) pipe is joined only by fittings such as elbows, tees, and couplings; 2) tubing is joined by brazing; 3) the fittings are listed for use in concealed space; or 4) where unavoidable to add fittings into the pipe, the pipe shall be reconnected by welding, flanges, or the use of a ground joint union with the nut center-punched to prevent loosening by vibration. Unions, tubing fittings, right and left couplings, bushings, swing joints, and compression couplings made by combinations of fittings shall not be used in concealed locations. [2002 NFPA 54 6.3.2]
- 6. Gas piping valves must not be located in non accessible spaces or more than six feet away from the appliance being served. [NFPA 54 8.5.4]
- 7. Each room or space that contains flammable or combustible vapors, noxious gases (i.e., toilets or chemical labs), flammable dusts, or serves incompatible material must be equipped with a separate and independent ventilation system. [SMC 401.2]

- 8. Chimney, vent or sanitary sewer exhaust outlets within ten feet of fresh air intakes must be at least two feet higher. [SMC 405]
- 9. Exhaust outlet ducts conveying noxious gases, flammable or corrosive vapors, and ducts serving commercial cooking and processing equipment must terminate outside the building and must be located ten feet from any adjacent building, parking area, adjacent property line, window, door or air intake opening and must be minimum ten feet above adjoining grade level and must terminate 40 inches above roof surface. [SMC 506.1]
- 10. PVC pipe must be enclosed in a one-hour shaft, or firestopped with an approved system. [SBC 705.2]

## VIII. FIRE SUPPRESSION

- 1. Provide general layout of sprinkler system and show main risers, related electrical connections, available water supply and design water demand. [NFPA 13]
- 2. Activation of the sprinkler system must activate the fire alarm system. [SBC 903.8.3]
- 3. Sprinkler control valve must be electrically supervised. [SBC 903.8]
- 4. Extinguishing system required by SBC must be connected to the fire department or an approved central station. [SBC 903.8 and NFPA 101 9.7.2.2]

#### IX. ELECTRICAL

- 1. Provide emergency lighting for exitways, and normally occupied windowless spaces. [NFPA 101 14.2.9]
- 2. Emergency lighting must have stand-by power source, [NFPA 101 7.9.2, 2002 NFPA 70, Article 700, and SBC 1016.2.1] automatically providing the required illumination in the event of any interruption of normal lighting in areas where emergency lighting is required by SBC 1016 and NFPA 101 7.8, due to any of the following:
  - a. Failure of a public utility or other outside electrical power supply.
  - b. Opening of a circuit breaker or fuse.
  - c. Manual act(s), including accidental opening of a switch controlling normal lighting facilities.
- 3. Exit signs must have an emergency power source or be a listed self-illuminating type sign. [NFPA 101 7.10.4, 7.10.5, and SBC 1016.3.3.2]
- 4. Egress lighting must be installed per NFPA 101 14.2.8.
- 5. Provide manual fire alarm system if portables are a single room greater than 1,000 square feet, butted together or spaced within 50 feet of main school building or spaced within 50 feet of other structures. [NFPA 101 14.3.4 and SBC 905] Provide fire alarm per NFPA 72. (See Fire Alarm Correction List)
- 6. Units containing two or more classrooms must be tied into school's fire alarm system. [NFPA 101 14.3.4]

- 7. In areas not continuously occupied, automatic smoke detection must be provided at each control unit(s) [i.e., fire alarm control panel, etc.). Heat detection is permitted if ambient conditions prohibit installation of smoke detection. [NFPA 72 4.4.5]
- 8. A thee-foot horizontal clearance must be maintained from floor to ceiling in front of electrical panel.
- 9. Clearance may not be used for storage and may not contain ductwork, piping, etc. [NFPA 70, NEC 110.26(a) (1)]
- 10. Electrical outlet boxes located on opposite sides of rated walls must be separated by a horizontal distance of 24 inches. [SBC 705.5.2]
- 11. Two means of egress must be provided from electrical rooms when the electrical equipment is rated for 1200 amps or more and over 6'-0" (1.8m) wide. [NFPA 70 110-26.C(2)]. The entrances shall be no less than 24" (610mm) wide and 6'-6" (2.0mm) high. Both entrances shall open in the direction of the egress and be equipped with panic bars, pressure plates, or other devices that are normally latched but open under simple pressure. [NFPA 70 110.26.C(2)]
- 12. Dry-type transformers installed indoors and rated 112 1/2 kVA or less shall have a separation of at least 305 mm (12 in.) from combustible material unless separated from the combustible material by a fire-resistant, heat-insulated barrier. [NFPA 70 450.21]
- 13. Individual dry-type transformers of more than 112 1/2 kVA rating shall be installed in a transformer room of fire-resistant construction. Unless specified otherwise in this article, the term fire resistant means a construction having a minimum fire rating of 1 hour unless either exceptions apply. [NFPA 70 450.21]
- 14. Electrical equipment rated for 1200 amperes or more and over 6 ft (1.83 m) wide, containing overcurrent devices, switching devices, or control devices, there shall be one entrance not less than 32 in. (810 mm) wide and 6 1/2 ft (1.98 m) high at each end of the working space. [NFPA 70 110-26 C(2). Both entrances shall open in the direction of the egress and be equipped with panic bars, pressure plates, or other devices that are normally latched but open under simple pressure. [2002 NFPA 70 110.26.C(2) and 2003 NFPA 101 7.2.1.2.4 ]
- 15. Individual dry-type transformers of more than 112 1/2 kVA rating shall be installed in a transformer room of minimum 1 hour fire-resistant construction, unless specified otherwise in article 2002 NFPA 70 450.21(B).